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09/943,501	08/31/2001	Hiroyuki Sawada	213485US3	8166

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EXAMINER
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COLAIANNI, MICHAEL

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/943,501

Applicant(s)

SAWADA ET AL.

Examiner

Michael P Colaianni

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-9 and 22 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 10-21 and 23-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 20 November 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

*Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "predetermined" in claim 1 is a relative term, which renders the claim indefinite. In the claim, the term "predetermined" is used in line 8 in regards to viscosity and in line 12 in regards to time. The term "predetermined" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised for the scope of the invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph; the language "substantially continuously applied" is vague and unclear. To explain, "continuously applied" means that the pressure is applied at the same pressure for the entire length of a specific amount of time. However, "substantially continuously applied" means that a pressure is applied at a particular force, but not for the entire length of a designated time. It is not clear what "substantially continuously applied" means because either the force is applied continuously or it is not.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "smaller" in claim 3 is a relative term, which renders the claim indefinite. The term "smaller" is not defined by the claim, the specification does not provide a standard for

ascertaining the requisite degree, and one of the ordinary skill in the art would not be reasonably apprised of the scope of the invention.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 4, 7, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al, Patent number: 5,228,894.

In claim 1, Sato et al teaches the molding of glass material softened by heat with a molding device comprising both an upper and a lower mold having a molding surface so that optically functional surfaces are formed by the application of both a first pressure and a second pressure (Sato, column 2, para. 2); the temperature of the glass material being maintained in the range of 615 °C down to 525 °C during the second pressing/cooling stage [covering ( $T_g + 30$ ) to ( $T_g + 50$ ) found in the applicant's claim 1] (Sato, Figure 5, denoted by the dashed curve labeled glass temperature); the removal of the glass material after it is cooled and obtains a specific viscosity (Sato, column 12, claim 1, lines 2-25), and a glass transition temperature,  $T_g$ , of 550 °C (Sato, column 9, lines 16-18).

Claim 2 is rejected under 102(b) because the "Load on the lower mold" as designated in Fig. 5 (Sato) could describe the language "substantially continuously applied" found in the claim. Specifically, the phrase "substantially continuously applied" includes a discontinuous application of pressure during the cooling and removing steps.

Sato et al also teaches that the secondary pressure is smaller than the molding pressure or the first pressure as described in applicant's claim 3 (Sato Fig. 5, "Load on the upper mold" and "Load on the lower mold").

Claim 4's statement that the secondary pressure at  $P_2$  being greater than  $P_1$  can be found in Sato et al Figure 5 as denoted by the Pressure in Glass,  $P_1$ , equaling zero (0) at a point in time between  $T_4$  and  $T_6$  and the Pressure in Glass during the second pressing,  $P_2$ , equaling 200 kgf/cm<sup>2</sup>.

As to claims 7 and 8, Sato et al teaches that the temperature of the lower mold should be within the range of 615 °C and 525 °C during the cooling process (Sato, column 11, lines 8-11) (assuming that the glass material sits on the lower mold and that the curve for the glass temperature and the lower mold temperature are isotherms). The applicant's teaching anticipates the temperature in the range of 500 °C -- 550 °C for the glass material in the cooling step. Also, Sato et al teaches that the  $T_g$  of the glass is 550 °C. The temperature range taught by Sato et al encompasses a particular point, 525 °C, within the applicant's claimed range with sufficient specificity. Thus the claims are anticipated.

As to claim 9, Sato inherently teaches that the glass material is maintained within a range of ( $T_g$ ) to ( $T_g - 20$ ) degrees centigrade, or 530 °C -- 550 °C, during cooling, because it is inherent that the glass material's temperature would at some point during the cooling process pass through this range as shown in Figure 5 (Sato).



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al, Patent number: 5,228,894 in view of Tomisaka, Publication No. US 2001/0039811 A1. Sato et al teaches the applicant's claimed invention. See the 102(b) rejection above for the Sato's teachings. However, Sato does not teach using two convex molds.

However, Tomisaka teaches using the two convex molds to make glass lenses (Tomisaka, para. 0019, lines 7-8). It would have been prima facie obvious at the time the invention was made to combine Tomisaka's twin convex molds with Sato et al's lens molding method because using Tomisaka's twin convex molds would enhance the versatility of the method by permitting lenses with various focal points and shapes to be made.

#### ***Allowable Subject Matter***

Claims 5, 6, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, and 25 are objected to because they are dependent upon claims that have been rejected. Each individual claim will be allowable if it is amended to be an independent claim. Reasons for allowance: none of the prior art taught or fairly suggested the subject matter of claims 5-6, 10-21, or 23-25.

#### ***Claim Objections***

Claims 2, 5, 7, 8, 9, and 12 are objected to because of the following informalities: In claim 2, the phrase "up to the removing" should be changed to "up to the removing of the glass

material" to provide clarification for the reader; In claims, 5, 7, 8, 9, and 12, the word "degree" should be changed to "degrees." Appropriate correction is required.

***Drawing Objections***

Figure 7 is objected to because of the following informality: The word "maintenance" in the title of the chart is spelled incorrectly. Appropriate correction is required.

***Specification Objections***

Specification paragraph 0013, line 7 is objected to because of the following informality: The word "degree" should be changed to "degrees." Appropriate correction is required. Please check the remainder of the specification for typographical errors.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Colaianni whose telephone number is 703-305-5493. The examiner can normally be reached on 9-5-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin, can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9494 for regular communications and same for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



MICHAEL COLAIANNI  
PRIMARY EXAMINER